

CLAIMS

1. A crosslinking agent (1) for crosslinking ionotropic gels by linking gel molecules (2) by counterion bridges (5),  
characterized in that  
the crosslinking agent contains the counterions (4) in  
a state where they are bound to a carrier substance  
(3), and the counterions (4) can be released from the  
carrier substance (3) under the external influence of  
a substance, temperature or radiation.
2. The crosslinking agent according to claim 1, where the  
carrier substance consists of cage molecules which  
bind the counterions in an electronic ground state and  
release the counterions in an electronic excitation  
state.
3. The crosslinking agent according to claim 2, where the  
cage molecules are formed from cage substances such as  
those used in cellular physiology for transport of  
divalent ions into biological cells.
4. The crosslinking agent according to claim 1, where the  
carrier substance and the counterion form a salt  
compound which can be dissolved under the influence of  
an acidifying solution.
5. The crosslinking agent according to claim 4,  
consisting of calcium carbonate.

6. The crosslinking agent according to one of the preceding claims, designed for the crosslinking of alginic acid molecules.
7. A gel solution containing an ionotropic gel and a crosslinking agent according to one of claims 1 through 6.
8. A powder composition consisting of a dried, uncrosslinked ionotropic gel and a dried crosslinking agent according to one of claims 1 through 6.
9. A method of crosslinking ionotropic gels using a crosslinking agent according to one of claims 1 through 6 with the steps:
  - providing a mixture of the gel molecules to be crosslinked and the crosslinking agent,
  - forming a layered body or a volume-molded body of the mixture, and
  - crosslinking the gel molecules by the external influence of a substance, temperature or radiation, which causes the counterions to be released from the carrier substance.
10. The method according to claim 1, whereby the first step comprises providing an aqueous solution of the gel molecules to be crosslinked and adding the crosslinking agent.

11. The method according to claim 9, where the first step includes mixing and grinding a powder of the uncrosslinked gel molecules and the crosslinking agent.
12. The method according to one of claims 9 through 11, whereby the crosslinking is induced by UV light exposure.
13. The method according to one of claims 9 through 11, whereby the crosslinking is induced by acidification.
14. The method according to one of claims 9 through 13, whereby the crosslinked ionotropic gel is formed in capsule form.
15. The method according to claim 14, whereby live biological cells are encapsulated in the capsules.
16. A use of a crosslinking agent according to one of claims 1 through 6 or a gel solution according to claim 7 or a powder composition according to claim 8 for
  - preparing wound dressings,
  - preparing dental fillings,
  - producing transplant encapsulations,
  - producing active ingredient encapsulations for food technology, and

- producing active ingredient encapsulations for cosmetics.

1. The first step in the process is the selection of the active ingredient. This is done by the chemist who is responsible for the formulation of the product. The selection of the active ingredient is based on the desired effect of the product and the compatibility of the ingredient with the other ingredients in the formulation.

2. The second step is the selection of the carrier. The carrier is the substance that will carry the active ingredient to the site of action. The selection of the carrier is based on the desired effect of the product and the compatibility of the carrier with the active ingredient and the other ingredients in the formulation.

3. The third step is the selection of the excipients. Excipients are the inactive ingredients that are used to give the product its desired form and stability. The selection of the excipients is based on the desired effect of the product and the compatibility of the excipients with the active ingredient and the carrier.

4. The fourth step is the selection of the packaging. The packaging is the container that will hold the product. The selection of the packaging is based on the desired effect of the product and the compatibility of the packaging with the product.

5. The fifth step is the selection of the labeling. The labeling is the information that is provided to the consumer about the product. The selection of the labeling is based on the desired effect of the product and the compatibility of the labeling with the product.